

## REVIEW

*Ecology and Management of Giant Hogweed (Heracleum mantegazzianum)*. Edited by Petr Pyšek, Matthew J. W. Cock, Wolfgang Nentwig, and Hans Peter Ravn. 2007. CABI International, Cambridge, MA. 324 pp. Hard cover \$120.00. ISBN 978-1-84593-206-0.

*Heracleum mantegazzianum* Sommier & Levier (Apiaceae) is an unusually large invasive herbaceous species, able to grow up to 5 m tall, with 1-m compound leaves and 50–150 rays of umbels per peduncle. Besides their obvious competitiveness, plants of this species contain furanocoumarins that make the human skin vulnerable to severe sunburn. The species, native to the Caucasus Mountains, has spread across Europe creating serious environmental and health problems. It has been reported as established in at least 10 of the U.S. states. So far, it is not established in California, but it is naturalized in Oregon, Washington and British Columbia (Boersma et al. 2006; Page et al. 2006).

This volume represents the output of a three-year European Union project involving almost 40 European experts. It is an authoritative compendium of current knowledge of Giant Hogweed taxonomy, biogeography, toxicity, genetics, reproduction, seed biology, population ecology, and invasion dynamics. The possibilities of mechanical, chemical, and biological control as well as model-assisted evaluations of control strategies are also summarized in separate chapters. There are only a very few invasive plant species to whom such well elaborated monographs have been dedicated. Because this species is becoming a serious problem in several U.S.

states, knowledge concentrated in this volume will be invaluable. While many infestations in the United States are still rather small, we should learn from this volume that *H. mantegazzianum* exhibited in Europe a distinct lag phase of 60 to 70 yr. The following exponential phase of spread was associated with distinct broadening of habitat preferences. Watercourses and other riparian environments were initially the major dispersal routes, but once the species started to spread beyond the river corridors, other linear habitats such as roads and railways became important. Subsequently, the species became less confined to higher altitudes and invaded warmer areas.

We may expect that several studies presented in this book will stand as model cases in plant invasion ecology and management. Petr Pyšek and his coworkers should be congratulated on this remarkable monograph on this spectacular but pernicious species!

—MARCEL REJMÁNEK, Section of Evolution and Ecology, University of California, Davis, CA 95616.

### LITERATURE CITED

- BOERSMA, P. D., S. H. REICHARD, AND A. N. VAN BUREN (eds.) 2006. Invasive Species in the Pacific Northwest. University of Washington Press, Seattle, WA.
- PAGE, N. A., R. E. WALL, S. J. DARBYSHIRE, AND G. A. MULLIGAN. 2006. The biology of invasive alien plants in Canada. 4. *Heracleum mantegazzianum*. Canadian Journal of Plant Science 86: 569–589.